



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,406	10/15/2003	Hamid R. Rabie	4320-523	4409
1059	7590	10/01/2004		
BERESKIN AND PARR SCOTIA PLAZA 40 KING STREET WEST-SUITE 4000 BOX 401 TORONTO, ON M5H 3Y2 CANADA			EXAMINER BUSHEY, CHARLES S	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/684,406

Applicant(s)

RABIE ET AL.

Examiner

Scott Bushey

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☒ Certified copies of the priority documents have been received in Application No. 09/488,359.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Japan 7-185271, Japan 8-323161, or Pedersen et al '997, taken in view of either of Japan 58-141796 or Japan 64-36099.

Japan 7-185271 and Japan 8-323161 each disclose apparatus wherein seepage of tank water into the aerator during the air off portion of the cycle will occur due to the hydrostatic head of liquid above the aerators. The references also each teach treatment tanks that are open to atmosphere at the top and thus the aerators therein are indeed vented to atmosphere, albeit through the head of liquid thereabove. Clearly, once enough air escapes from the aerators during

Art Unit: 1724

the air off portion of the cycle, wastewater will seep into the aerators and into the air feed pipe connected thereto.

Pedersen et al '997 (Figs. 1, 2, 4, 5; col. 4, lines 56-62; col. 7, line 25 through col. 8, line 14; col. 11, lines 19-28) clearly teaches flushing the aerators with bursts of air for 5 seconds alternating with air off conditions for 5 seconds, the cycle being repeated for 1 minute to clean the skein of hollow fiber membranes with air bubbles. As with the other alternative primary references seepage of tank water into the aerator during the air off portion of the cycle will occur within the Pedersen et al '997 device due to the hydrostatic head of liquid above the aerators.

Thus each of the alternative primary references substantially disclose applicant's invention as recited by instant claims 1-3 and 5-7, except for the aerator being vented to atmosphere via a valve in communication with the aerator.

Japan 58-141796 (Figs. 1-4) and Japan 64-36099 (Figs. 1 and 2) each alternatively disclose aerator line flushing means wherein liquid, which has entered the aerator during an air off situation is flushed from the aerator line via a pipe having a valve, which allows the aerator to be vented to atmosphere. Applicant should note that each of the secondary references teaches providing an air off condition during inspections of the device. Clearly, operation of such a device within wastewater treatment facilities will require frequent and regular inspections. It would have been obvious to an artisan at the time of the invention, to modify the aerator air line construction of any one of the alternative primary references, to include a pipe extension with a valve, in view of either of the alternative secondary references, whereby the aerator may be connected to atmosphere to conveniently flush the aerator, thereby greatly reducing operational failures due to clogging between regular inspection periods.

Response to Arguments

4. Applicant's arguments filed August 25, 2004 have been fully considered but they are not persuasive.

With respect to the applicant's argument that the references are not properly combinable since all of the primary references provide their repeated cycles during regular operation, while the secondary references only disclose venting when there is a problem, such is not persuasive, since venting during an inspection period is part of the regular operating cycle of the secondary references, as set forth in the rejection statement above.

With respect to the argument that the secondary references only teach venting after tank water has entered the aerator, such is not correct. Clearly, in view of the open top tanks of the secondary references, venting to the atmosphere of the aerators within the secondary references occurs immediately following air feed cutoff to the aerators by venting through the head of liquid and thus such venting reduces pressure within the aerators to the point at which tank water enters the aerators.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 1724


CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is (571) 272-1153. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Bushey
Primary Examiner
Art Unit 1724


9-29-04

csb
9-29-04